Our current strategy is to ''perfuse and watch'' with the aid of real-time monitoring and diagnostic imaging. As Rescigno and colleagues mentioned, near-infrared spectroscopy (NIRS) is useful for detecting newly developed cerebral malperfusion. Although they recognized an undesirable situation by inflow pressure and NIRS data, the former may not be apparent if the intima breaks at the suture line and pressure elevation is not apparent. Decreased oxygen saturation is likely to be a reliable indicator of an occurrence of something undesirable, whatever the cause.

Once malperfusion is detected, it is necessary to develop an appropriate strategy for restoring cerebral perfusion based on the cause of malperfusion. In this regard, visualization of the ''Y-junction'' with transesophageal echocardiography can be helpful for correctly pursuing the strategy, because it provides real-time information on morphology and perfusion.

However, the decision can be incorrect, as in our case. Thus, the decision needs to be immediately assessed to avoid further delay in restoring adequate perfusion. This can be achieved by NIRS. If oxygen saturation remains low, other possible scenarios should be considered.

We believe that a sequence of ''detection, decision, assessment'' is important in the operating room, especially in cases of acute aortic dissection. To minimize ''unfortunate events of unknown cause,'' it is necessary to fully use the modalities available for obtaining real-time information. This will be another important task for cardiovascular surgeons, as well as surgical skill.

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ENDOSCOPIC TREATMENT OF AIRWAY STENOSIS AFTER LUNG TRANSPLANTATION

To the Editor:

We read with interest the article from Thistlethwaite and colleagues[1] entitled ''Airway stenoses after lung transplantation: incidence, management and outcome.''

We agree that silicone stents are extremely useful to complete treatment of posttransplantation airway stenosis after mechanical/laser debridement; they can effectively support the airway during healing and prevent recurrence. The use of this type of stent is particularly indicated for type 1 and 2 stenosis (according to the classification reported by the authors), and they can be easily fenestrated to allow ventilation to the upper lobes when the bronchial stenosis comes across them. However, we have met some difficulties in placing these stents when the stenosis is extremely long and tortuous, encompassing also the airway distal to the anastomosis for a long segment or the peripheral airway (type 3 and 4 stenosis). This is obviously a very small group of patients (in the reported series there are only 3 [15%] patients), but this problem has been certainly met by all the groups performing lung transplantation, and the difficulties in its treatment are evident. When this type of complication occurs, it usually requires several treatments with unsatisfactory results, and permanent stenting is usually indicated. In this situation we have found extremely useful the use of covered expandable metallic stents (Ultraflex; Boston Scientific, Galway, Ireland). They can be easily deployed, completing airway dilatation, and present a better ratio between the thickness of the wall of the stent and the diameter of the stent itself, allowing a better airflow, especially for small diameters; thus clearance of secretion is improved. Although they are more expensive than silicone stents and clearly more difficult to remove, their use might be preferred in this subset of patients. We have used them in 5 patients without major complications.

Could the authors provide more details about the group of patients with type 3 and 4 stenosis?

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1. Thistlewaite PA, Yung G, Kemp A, et al. Airway stenoses after lung transplantation: incidence, management, and outcome. *J Thorac Cardiovasc Surg*. 2009;136:1569-75.

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Reply to the Editor:

We appreciate the interest that Drs Anile and Ventura have in the management of lung transplant recipients with distal focal bronchial stenosis (type 3 disease) and diffuse distal stenosis (type 4 disease). This is a complex group of patients to manage, and their airway issues can be challenging.[1]

As a high-volume center for bronchial stent placement (for causes other than transplantation), we have been uniformly disappointed with the use of expandable metallic stents. Metallic stents in the airway are expensive and associated with fracture, overgrowth of granulation tissue, and erosion through the tracheobronchial wall. Although the cost of a single metallic stent is low in comparison with the total expense of lung transplantation, cost precludes having a large inventory of these stents available. We currently have an inventory of more than 100 Silastic stents (Hood Laboratories, Pembroke, Mass, and Bryan Corporation, Woburn, Mass). This inventory allows us to find the right stent for almost any airway, to tailor a specific stent to an